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Undergraduate Syllabus

Year 1 | Year 2 | Year 3 | Year 4 | Degree Programme Specification | Assessment Structure and Scheme for the Award of Honours

MRes in Nanomaterials | Programme Specification

What's New

27.05.04. New physical chemistry notes (Ian Gould) available.

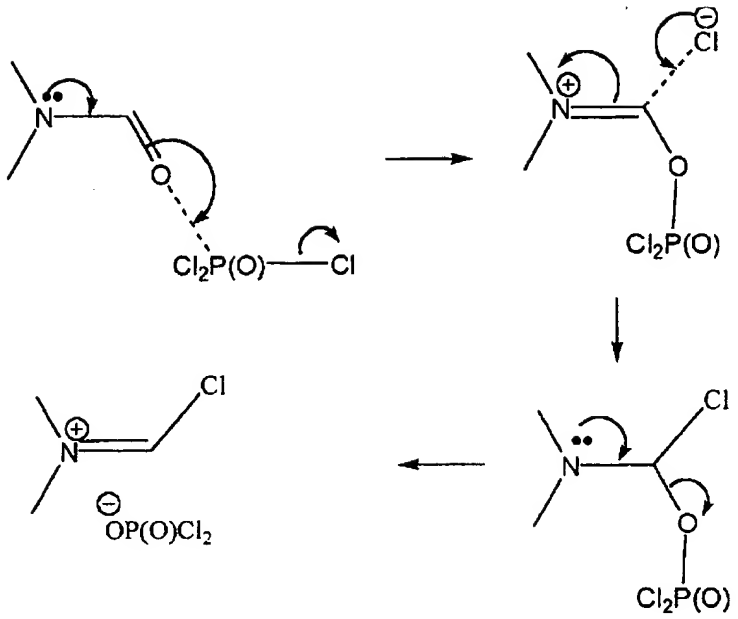

Fig. 5

(b) Reactivity and Orientation: definitions

What do we mean by these terms? If we have a mono-substituted benzene instead of benzene itself then attack by the electrophile can occur in four possible positions (ipso, ortho, meta and para):

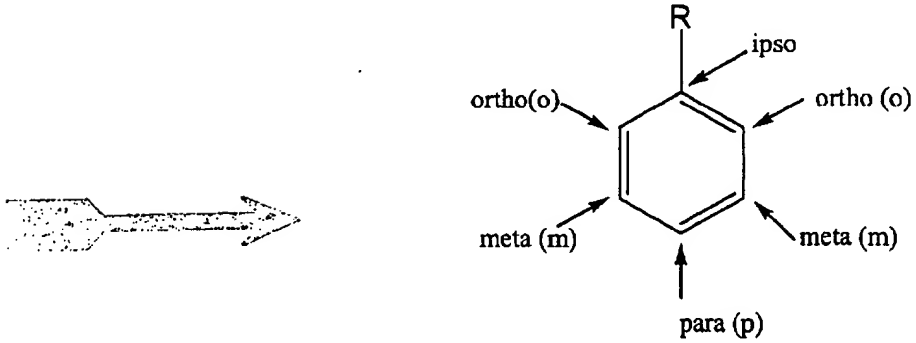

Fig. 6

Which of these sites is attacked is called the Orientation of the reaction.
When compared with benzene, the rate of the reaction of a mono-substituted benzene may be slower or faster. This is the Reactivity of the reaction. If the reaction is slower the substituent is said to deactivate the ring; if faster it activates it. The following illustrate the differences in orientation and reactivity that we may observe: